

The Paris to Projects Research Initiative

Discussion paper

The key components and provisions that need to be incorporated into assessment legislation to ensure that assessed undertakings help meet Canadian climate change mitigation commitments and duties

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Explanatory note

The bulk of this document is the working draft of part 4 of a larger report, *From Paris to Projects: clarifying the implications of Canada's climate change mitigation commitments for the planning and assessment of projects and strategic undertakings*. That report, which is being prepared with support from the Metcalf Foundation and contributions from a broader network of multi-disciplinary collaborators, aims to spur and inform discussion of how Canada's international commitments on climate change mitigation can be addressed effectively in assessment deliberations and decision making.

The draft material implications for legislation is being circulated now for initial consideration, recognizing that a bill to establish a new federal assessment regime is to be tabled shortly and that provisions for suitable attention to climate change will be crucial considerations in the legislative deliberations.

In the full *Paris to Projects* report, this part on legislative implications will be preceded by discussions of

- overarching concerns, duties and meta-principles for guidance development,
- moving from the *Paris Agreement* to Canada's fair share of climate mitigation, and
- addressing the gap between Canada's Paris duties and assessment guidance tools for projects and strategic undertakings.

The three preceding parts provide the basis for identifying a set of tests for determining whether a proposed undertaking would or would not contribute to meeting Canada's international climate change mitigation commitments and for identifying the implications for new assessment law.

This discussion paper is comprised of three items:

- a summary that serves as a basic briefing note on the core climate components that should be included in the new federal legislation,
- a box presenting the tests for determining an undertaking's contributions to meeting Canada's international climate change mitigation commitments, and
- the full text of the part 4 discussion of implications for the new law.

Comments are most welcome. Please address them to the authors

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Table of Contents

Summary: Climate components to look for in the new federal assessment law – what’s needed to ensure the law’s requirements are consistent with meeting Canada’s <i>Paris Agreement</i> commitments to climate change mitigation.....	5
The core tests to be applied in assessments of undertakings that may affect prospects for meeting Canada’s commitments.....	7
The key components and provisions that need to be incorporated into assessment legislation to ensure that assessed undertakings help meet Canadian climate mitigation commitments and duties	9
1.1 What is the legislative gap to be filled?.....	9
1.2 What should be the legislated purpose and scope?.....	11
1.2.1 Questions concerning purpose and scope	11
1.2.2 Answers concerning purpose and scope	12
1.3 What climate-related criteria should be established for assessment evaluations and decision making under the law?.....	14
1.3.1 Questions concerning climate-related criteria for evaluations and decisions.....	15
1.3.2 Answers concerning climate-related criteria for evaluations and decisions.....	16
1.4 What climate-related trade-off rules and processes that should be established in law?	22
1.4.1 Questions concerning trade-off rules and processes.....	22
1.4.2 Answers concerning trade-off rules and processes.....	23
1.5 To what potentially climate-significant project-level undertakings should assessment requirements apply?	25
1.5.1 Questions concerning application to potentially climate-significant projects	25
1.5.2 How should we determine which climate-important projects will be subject to assessment requirements?.....	25
1.5.3 Answers concerning application to potentially climate-significant projects	26
1.6 To what potentially climate-significant strategic-level undertakings should assessment requirements apply?	29
1.6.1 Questions concerning application to strategic undertakings (the development of policies, plans and programs, including regional strategic plans or the equivalent)	29
1.6.2 Answers concerning application to potentially climate-significant strategic undertakings (policies, plans, programs and regional strategic initiatives).....	31
1.7 What climate-related information and standards for evaluations should be incorporated?.....	35
1.7.1 Questions concerning information and standards.....	35

1.7.2	Answers concerning information standards and factors to be considered in assessments	37
1.7.3	Specifics on definitions, standards and methods of analysis	38
1.8	What decision making processes are needed?	45
1.8.1	Questions concerning key process considerations	45
1.8.2	Answers concerning key process considerations	45
1.9	How should interjurisdictional collaboration be fostered and facilitated?	46
1.9.1	Questions concerning interjurisdictional collaboration	46
1.9.2	Answers concerning interjurisdictional collaboration	47
1.10	What provisions are needed in the statute and what should be set out in regulations?	48
1.10.1	Questions concerning the placement of climate-related provisions in the statute and in regulations	48
1.10.2	Answers concerning the placement of climate-related provisions in the statute and in regulations	48
1.11	Concluding note	49

Summary: Climate components to look for in the new federal assessment law – what’s needed to ensure the law’s requirements are consistent with meeting Canada’s *Paris Agreement* commitments to climate change mitigation¹

The word “climate” does not appear in the *Canadian Environmental Assessment Act, 2012*, and decisions under that law have not helped Canada move towards meeting our international commitments to greenhouse gas emission reductions in line with our commitments and basic responsibilities to future generations.

The current federal government, however, has signed the *Paris Agreement* and engaged actively in new climate initiatives and is about to introduce new assessment legislation that can and should play a key role in meeting our international commitments.

The following points identify the key climate-related components needed in the new law and in assessments of individual proposed projects and strategic undertakings under that law.

1. The statute should establish climate change mitigation consistent with international commitments as a fundamental requirement while also providing broad direction for the specifics to be set out in regulations. This approach is needed to anticipate the rising ambition of international and national climate change mitigation goals and accommodate the need to learn from experience.
2. The purposes section of the statute should include the objective of contributing to maintaining a healthy and stable climate for future generations and, more specifically, to meeting Canada’s international commitments, including those on climate change.
3. The section(s) of the statute related to determining the application of assessment requirements to particular undertakings (sometimes called the “triggering” sections) should explicitly require the application to project and strategic-level undertakings that may affect prospects for meeting Canada’s international climate change mitigation commitments. This should include projects that have direct or indirect lifetime implications for GHG emissions and/or GHG sinks and/or that may hinder or delay timely transition to a clean economy based on low carbon energy systems. In case of a project list (and strategic undertaking list) approach, these legislative criteria should guide the development of the initial list as well as additions to it over time.
4. The scope of effects to be addressed under the statute should be broadly encompassing of matters that could affect lasting wellbeing, and the section of the statute on “factors for consideration” in all assessments should include “implications for meeting Canada’s

¹ This briefing note was also signed by H. Damon Matthews, Professor and Concordia Research Chair in Climate Science and Sustainability, Department of Geography, Planning and Environment, Concordia University; Karen Campbell, Climate Change Program Director, Ecojustice Canada; Sara Seck, Associate Professor of Law, Schulich School of Law, Dalhousie University and Chris Tollefson, Professor of Law, Faculty of Law, University of Victoria.

international climate change mitigation commitments over the life of the project or other undertaking.”

5. The sections of the statute on criteria for evaluations and decision-making concerning proposed undertakings should include attention to whether or not a proposed undertaking would contribute to maintaining a healthy and stable climate for future generations and, more specifically, to meeting Canada’s international climate change mitigation commitments over the life of the project or other undertaking.

6. The sections of the statute setting out regulation-making powers should include provisions for specifying or clarifying requirements on climate-related matters. Regular reviews of regulations should be required in order to learn iteratively from the emerging climate science and to respond to the progressive increase in ambition under the *Paris Agreement*. Specific provisions should provide regulation-making powers concerning, minimally:

- details on the climate-related factors for consideration and associated information requirements,
- more specific climate-related criteria and trade-off rules for evaluations and decision making, and
- tools and analytical approaches or “tests” for determining whether a proposed undertaking would contribute to meeting Canada’s international climate change mitigation commitments (the core tests to be applied are illustrated in Box 1, below).

The core tests to be applied in assessments of undertakings that may affect prospects for meeting Canada’s commitments

Box 1: Tests to be applied to determine whether a proposed undertaking would or would not contribute to meeting Canada’s international climate change mitigation commitments

The core test is that all projects and other proposed undertakings that, over their lifetime, may be GHG significant must

- be consistent with meeting Canada’s international climate change mitigation commitments, and not hinder transition to GHG neutrality in time to meet those commitments.

The commitments currently established chiefly under the *Paris Agreement*, require Canada to do its fair share

- to keep overall climate warming “well below 2°C” and to pursue efforts to limit the increase to 1.5°C above pre-industrial levels” (Article 2.1.);
- to reach global GHG neutrality in the second half of this century “on the basis of equity, and in the context of sustainable development and efforts to eradicate poverty” (Article 4.1.); and
- to anticipate regular review and revision of signatories’ commitments to reflect progressively increasing nationally determined contributions that reflect each signatory’s “highest possible ambition” (Article 4.3).²

More specific tests that elaborate on the core test can be based on analyses using a variety of available tools that could be developed and specified further for Canadian application, and on existing Canadian policy guidance adjusted as needed to reflect our current and anticipated international commitments.

Tests based on particular analyses using a range of tools would, for example, require a proposed undertaking

- to contribute to the major transformations that are needed in key sectors – including energy, transportation, buildings, manufacturing and resources – to achieve GHG neutrality in Canada in time to meet our international commitments;
- to avoid any direct or indirect effects that would hinder timely transition to GHG neutrality;
- to fit on a credibly identified sectoral or regional pathway to meeting Canada’s international commitments;
- to be consistent with staying within a defensible GHG budget for Canada (and

² Canada will be asked to review its commitments with a view to “progression” in 2018, 2023, and 2028.

within the global GHG budget consistent with meeting international objectives), as further specified for a sector or region;

- to be viable if the GHG price needed to achieve timely transition to a GHG-neutral economy were incorporated;
- to be viable if the full social cost of the GHGs properly attributable to the undertaking were incorporated;
- to avoid, or compensate for, any addition to the costs of making a timely transition to GHG neutrality;
- to avoid, or provide legitimate new domestic offsets to neutralize, any properly attributable GHG emissions or sink impairments past the Canadian deadline for GHG neutrality entailed by Canada's current international commitments; and
- to be consistent with ensuring that Canadian GHG mitigation and sink enhancement initiatives reflect "highest possible ambition" or best efforts and not impede more promising options.

Tests based on existing domestic policy guidance would need to favour openly developed and otherwise credible policies and would need to be updated regularly to recognize new guidance. However, in every case the guidance would have to be consistent with meeting Canada's international commitments.

For illustration, given current domestic policy guidance, a proposed undertaking would be required

- to be consistent with meeting Canada's current Nationally Determined Contribution (NDC), plus leave flexibility for Canada to make its fair contribution to addressing the gap between the current NDCs and the more ambitious collective commitments of the *Paris Agreement*,³ and to anticipate needs for increasing ambitions in future national commitments under that *Agreement*; and
- to be consistent with the requirements implied by the *Pan-Canadian Framework on Clean Growth and Climate Change*, plus leave flexibility to take the additional steps needed to address the gap between the *Framework* components and the current NDC, as well as the gap between the current NDC and the *Paris Agreement*.

As should be evident, specifying these tests through open and meaningfully participative strategic policy making, including application of legislated strategic assessment requirements, would be preferable to relying on case-by-case debates on the test requirements and implications. Also these tests would need to be applied to all activities and undertakings affecting prospects for meeting Canada's climate change mitigation commitments, including existing activities and undertakings and ones otherwise not subject to legislated assessment requirements.

³ Canada's current NDC assumes the old 2°C maximum warming target and does not represent a fair contribution to achieving that goal.

The key components and provisions that need to be incorporated into assessment legislation to ensure that assessed undertakings help meet Canadian climate mitigation commitments and duties

1.1 What is the legislative gap to be filled?

Assessment law is among the most powerful available means Canada has for acting on its international climate change mitigation commitments. Effective mobilization of assessment law for climate purposes entails incorporation of climate-related provisions in assessment law, and application of these provisions to strategic as well as project-level undertakings. It also involves clarification how of assessment law can be used most effectively to help fill the gap between Canada’s international commitments and decision making on proposed undertakings.

Most of the undertakings that have been subject to assessment requirements in Canada have been physical projects, including ones with important long as well as short term implications for meeting climate change mitigation commitments. However, many jurisdictions are recognizing needs also to assess major strategic undertakings, including policies, plans and programs with important climate implications. Together, assessment of climate-significant projects and strategic undertakings could play a major role in helping Canada act on its international climate change mitigation commitments.

The gap between Canada’s international commitments and assessments of proposed undertakings is now wide. The word “climate” does not appear in the current version of the Canadian Environmental Assessment Act. Canadian climate change mitigation commitments and responsibilities are not recognized in the Act as key matters of federal jurisdiction, as grounds for requiring assessments, or as factors for consideration in federal assessments. Also, while climate-related matters have been addressed in individual assessment deliberations in the federal process, their treatment has proved to be highly problematic.

The inadequate treatment of climate change mitigation under the current law has resulted in part because the current law focuses on identifying particular “significant adverse environmental effects.” Some interests have found it convenient to argue that an individual project’s GHG emissions have no distinguishable particular biophysical effects and are not significant at the global scale where climate effects are broadly attributed to the combined effects of all GHG emissions and GHG sink losses.

The federal assessment regime is, however, about to be changed. An assessment law reform process that began in 2016 has led to proposed new legislation that, at the time of writing, was about to be tabled in Parliament.⁴ During the review federal government

⁴ The assessment law reform process included an extensive public review by an Expert Panel (Expert Panel on the Review of Federal Environmental Assessment Processes, *Building Common Ground: A New Vision for Impact Assessment in Canada* (April 2017), online: <<https://www.canada.ca/en/services/environment/conservation/assessments/environmental->

indicated interest in ensuring greater attention to climate issues under the new law.⁵ If the new assessment law is to be effective in helping Canada meet its international commitments on climate change mitigation, the statute must incorporate a set of core climate-related requirements and provide for their specification and elaboration in regulations and policies under the law.

The following discussion identifies the key questions to be addressed and provides initial responses on how best to incorporate due attention to Canadian climate change mitigation commitments in the new law.

First, however, we offer the following initial clarifications about our agenda and assumptions:

- Guidance for project and program assessments based on Canada's commitments made under the *Paris Agreement* needs to be developed in a broader context of climate justice, which implies respect for human rights, including the rights of Indigenous peoples, and be guided by the precautionary principle.⁶
- Assessment law is only one of several key means of acting effectively to meet Canada's international commitments concerning climate change mitigation. As we note below, requirements applied to proposed new undertakings need to be accompanied by requirements applied to other climate-important activities not covered by assessment law. Moreover, even the most effective assessment law needs support from a Canadian climate law as a broad foundation for initiatives to meet climate change mitigation commitments.
- Similarly, our focus here on addressing Canada's international commitments on climate change mitigation does not diminish needs for due attention to other key climate-related issues, especially needs for climate change adaptation.
- We assume that to accommodate learning from experience, the rising ambitious of international and national climate change mitigation goals, and other requirements for flexibility, the statute itself should incorporate only the fundamental legislative requirements concerning matters related to climate change mitigation and provide for the specifics to be set out in regulations. As well, the statute should incorporate requirements for regular review and updating of the climate change mitigation components in light of experience, new learning and the

reviews/environmental-assessment-processes/building-common-ground.html>, followed by release and public response to a subsequent government *Discussion Paper* (Government of Canada, Environmental and Regulatory Reviews Discussion Paper (June 2017), online: <<https://www.content/dam/themes/environment/conservation/environmental-reviews/share-your-views/proposed-apprw.canada.coach/discussion-paper-june-2017-eng.pdf>> in French: <<https://www.canada.ca/fr/services/environnement/conservation/evaluation/examens-environnementaux/faites-connaître-vos-opinions/approche-proposee.html>>.

⁵ *Discussion Paper*, p.9. In that paper the government's raised the possibility of a strategic assessment to clarify the implications of the Pan-Canadian Framework for Clean Growth and Climate Change for assessments under federal law. Since then there have been suggestions that the focus may not be limited to the Pan-Canadian Framework.

⁶ These and related considerations are addressed in the preface to the *Paris Agreement*, 22 April 2016, (entered into force 4 November 2016) [*Paris Agreement*], online: <http://unfccc.int/paris_agreement/items/9485.php>.

anticipated rising ambition of international and national climate change mitigation goals.⁷

- Finally, we assume that the new assessment law will be sustainability-based. That has been widely recommended, including by the government's Expert Panel. Moreover, a sustainability-based assessment foundation is well suited to addressing the demands of climate change mitigation and integrating these demands with other expectations and obligations.

The usual way of approaching assessment requirements in law is to begin with what sorts of undertakings are to be assessed, and then move on to what information is to be required in support of each proposed undertaking, what analyses are to be done, and finally how decisions are to be made about whether or not the undertaking should go ahead and if so with what conditions, monitoring and other follow-up. All of these steps, however, depend on what is to be accomplished. What undertakings are proposed, what information and analyses are required and how decisions are made turn on the objectives to be served and the test to be applied.

Consequently, this section will begin by discussing matters of purpose and criteria, and then proceed to matters of application, information and analysis. The discussion then addresses decision making, recognizing that climate change considerations must be integrated with other considerations in the planning and assessment of relevant undertakings, and must help inform the comparative evaluation of reasonable alternatives to determine which option has the best prospects for contributing to sustainability, while avoiding significant adverse effects. The final topics in this section are interjurisdictional collaboration and the nature of the provisions to be included in the statute in contrast to those to be left for regulation and policy guidance.

1.2 What should be the legislated purpose and scope?

1.2.1 Questions concerning purpose and scope

The first set of issues surrounding the climate-related contents of new assessment law concerns the connection between climate change mitigation commitments and the basic aims of assessment law. The core question here is how should the purpose and scope of the statute be framed to incorporate effective attention to meeting Canada's climate change mitigation commitments?

More specifically, the key questions about purpose and scope are as follows:

- How can the purpose and scope of Canadian assessment law centred on assessing current proposals for individual projects or strategic level undertakings best

⁷ The initial Canadian federal assessment law was subject to mandatory review, first after five years and then after seven years. Given the newness of climate change requirements in assessment law, the likely changes in climate change understanding and commitments, and the need to learn from early experience, the climate-related assessment criteria, trade-off rules and other guidance for analyses and other determinations should be subject to relatively frequent regular review.

recognize long-term global concerns and opportunities, including those raised by Canada's international commitments to major accomplishments in climate change mitigation?

- How can the purpose and scope provisions set objectives and define a test for proposed undertakings that foster effective efforts to meet climate change as a global challenge that requires transformational change that goes well beyond the usual focus on Canadian assessment law on the mitigation of particular adverse effects?
- How can the law focus attention on identifying the best options for positive contributions to climate change mitigation and other sustainability objectives, rather than merely judging whether or not a proposed undertaking is “acceptable”?
- How can the scope of relevant considerations be defined to ensure that all key climate-related factors are taken into account and integrated into the legislation in a ways that also fits into the broader context of sustainable development and poverty eradication, as required under the *Paris Agreement* (Article 4.1.)?

1.2.2 Answers concerning purpose and scope

Appropriate answers to these questions involve both general and climate-specific provisions.

- The statute's broadest purpose provisions should establish that the core purpose is to ensure that approved undertakings make positive contributions to sustainability while avoiding significant adverse effects.
- More specifically to address climate change mitigation objectives, the statute's purpose and scope provisions should
 - include among the other purposes of the law the specific purpose of contributing to meeting Canada's international commitments to climate change mitigation and maintaining a healthy and stable climate for future generations;
 - ensure that positive contributions to sustainability are defined explicitly to emphasize intergenerationally lasting contributions (such as climate change mitigation);
 - define the general scope of assessment considerations to include all factors that may affect lasting wellbeing, and their interactions (whether the factors are identified in the common social economic, biophysical/ecological, cultural and health categories, or in more directly relevant cross-cutting categories of basic requirements for progress towards lasting wellbeing,⁸ or some combination);

⁸ The basic sustainability requirements categories can be summarized as follows: maintaining ecological integrity, enhancing foundations for sustainable livelihoods, building intra- and inter-generational equity, maintaining resources and expanding efficiencies, practicing precaution,

- require attention to cumulative as well as undertaking-specific effects, indirect as well as direct effects, effects beyond Canada as well as domestic effects, and lifetime/lifecycle as well as more immediate effects; and
- require, in each case, comparative assessment of reasonable alternatives, including the null option of not proceeding with the proposed undertaking, and identification of the best option for positive contributions to sustainability, including climate change mitigation (in contrast to assessing only whether the proposed undertaking is “acceptable”).

Additional provisions related to the purpose and scope of the law are needed to recognize the unique set of challenges raised by climate change mitigation. Two special challenges of attention to climate change effects in assessments merit particular attention:

The first special challenge arises from the atypical characteristics of climate change issues. These are that the effects of GHG emissions and sink losses are cumulative at the global scale, that their most significant consequences are intergenerational, and that they cannot be addressed usefully by traditional assessment approaches that identify particular effects attributable specifically to particular undertakings. Instead, climate effects assessments must focus on doing our part in the global efforts to avoid devastating climate change. That includes compliance with international climate change mitigation commitments and it entails that assessments determine whether the GHG implications of a proposed undertaking are consistent with meeting global needs for GHG emission reductions and sink enhancements that are set out most authoritatively in international commitments, currently led by the *Paris Agreement* commitments. Accordingly, the assessment law must base the test for climate change effects on consistency with meeting international commitments. That is one key reason why, as suggested above, meeting international climate change mitigation commitments should be included as one of the purposes of the law. Two complementary steps are also needed:

- To ensure that climate change effects assessment is centred on consistency with the implications of international commitments, the law should
- require decision makers to ensure decisions are consistent with meeting international climate commitments/obligations;⁹ and
- provide for regulations to specify suitable approaches to assessing effects on climate change commitments.

The second special climate change assessment challenge is that any potentially adequate global mitigation efforts must go well beyond the usual approaches to effects mitigation in assessment practice. In the case of climate change, mitigation efforts must achieve

deepening learning and engagement, and seeking mutually reinforcing gains in all these areas at once. See Gibson et al., *Sustainability Assessment: Criteria and Processes* (London: Earthscan, 2005) chapter 5.

⁹ This option raises possibilities for similar approaches to other areas of international concerns and commitments, including biodiversity and human rights.

substantial transformations – for example, transformation of current energy, transportation and other systems and associated institutions, structure and practices.

- To ensure that climate change effects assessment addresses needs for transformations as well as more conventional mitigation, the law should
 - clarify that the legislated purpose of compliance with climate change commitments entails fostering necessary transformations as well as contributing to the reduction of net GHG emissions in line with what is required to meet the commitments;
 - provide for regulation making and other guidance to clarify how to determine the transformational needs of relevant sectors and/or regions;¹⁰
 - provide for regulation making and other guidance on how to determine whether a proposed undertaking will or will not contribute adequately to meeting transformational needs, and if not, to determine whether and how the proposed undertaking could be redesigned to meet transformational needs; and
 - provide for regulation making and other guidance on how application of requirements centred on meeting climate change mitigation commitments is to be integrated with consideration of other requirements for progress towards sustainability.

1.3 What climate-related criteria should be established for assessment evaluations and decision making under the law?

An assessment law that has a sustainability-based core purpose and scope (as we have assumed here) would incorporate the multi-generational perspective needed for serious attention to climate change mitigation commitments. It would also require the comparative evaluation of alternatives in light of a wide range of effects, including interactive ones. That, in turn, should facilitate identification and selection of climate-friendly alternatives to conventional undertakings that are not compatible with Canada's climate change mitigation commitments. To support these components, these statutory provisions would be accompanied broadly in the statute and more specifically in regulations by core criteria for sustainability-based evaluations and decision making, guidance for considering trade-offs and other clarifications of the intended approach to deliberations under the law.¹¹ To ensure effective recognition of climate change mitigation objectives, however, these foundations for sustainability-based assessment would need to be complemented by climate-specific criteria and trade-off rules and guidance for their application.

¹⁰ If a comprehensive new federal climate act were passed, the assessment statute could reference clarifications provided under that law.

¹¹ Robert B. Gibson, Meinhard Doelle and A. John Sinclair, "Fulfilling the promise: basic components of next generation environmental assessment," *Journal of Environmental Law and Practice* 27 (2016), pp.251-276.

In the following discussion, we consider the issues surrounding establishment of climate-related criteria for evaluations and decisions. Trade-off rules will be addressed in the following section.

1.3.1 Questions concerning climate-related criteria for evaluations and decisions

What sustainability-based evaluation and decision-making criteria should be applied to ensure explicit integration of due attention to climate change mitigation obligations and implications in assessments?

- How should the climate-related criteria be included with and distinguished from other sustainability-based decision criteria?
- What core climate-change criteria requirement(s) should be set in the statute and what specific criteria, and guidance for application should be provided in regulations?
- How should the development of specific criteria and application guidance proceed in the current absence of established policy on the key matters that provide a basis for specifying the climate test for assessments of proposed undertakings (see Box 1, above, on the climate tests)
- How should the criteria require
 - individual undertakings to contribute to, or at least be consistent with, broader transformations (e.g., decarbonisation of particular sectors by a specified deadline);
 - capacity to deepen GHG emission cuts or increase sink enhancements to address higher future requirements arising from the increasingly ambitious future national commitments expected under the *Paris Agreement*,¹² and
 - needs to ensure that Canadian GHG mitigation and sink enhancement initiatives reflect “highest possible ambition” or best efforts and not impede more promising options?
- To what deliberations and decision making in individual assessments, and in other activities under the legislation, should the climate-related evaluation and decision-making criteria be applied?
- How should the evaluation and decision criteria be linked to information requirements, for example information requirements setting out what GHG emissions and GHG sink effects are properly attributable to an individual undertaking and what offsets (e.g., establishment and use of carbon capture and storage facilities) are acceptable for the calculation of net GHG emissions and sink effects?

¹² *The Paris Agreement*, 22 April 2016, UNTS article 4.3. (entered into force 4 November 2016) [*Paris Agreement*] *Paris Agreement*, online: <http://unfccc.int/paris_agreement/items/9485.php>.

1.3.2 Answers concerning climate-related criteria for evaluations and decisions

To ensure that undertakings assessed and approved under the new law contribute to meeting Canada's international climate change mitigation commitments, the law should incorporate decision-making criteria that set out this basic requirement and provide necessary elaborations for effective application. As the discussion above indicates, establishing the needed climate change mitigation criteria in law entails responding to a variety of significant questions. Properly, the responses should be designed as a package of integrated parts. For convenience, however, the following discussion presents the key components in six categories: the basic framework for climate-related and other criteria; the place of a core climate change criterion in the larger suite of core sustainability-based criteria; the core sustainability-based criteria categories; particular issues to be addressed in the criteria; means of dealing with the current absence of clear policy guidance on the assessment implications of Canada's overall climate mitigation commitments; areas of decision making in which the criteria should be applied; and associated information requirements.

(i) The basic framework for climate-related and other criteria

The basic structure for legislated assessment criteria relies on the statute for the foundations and core criteria, and on regulations and other guidance developed under statutory provisions for more specific and detailed criteria and associated clarifications.

- The foundations for all decision criteria, including those related to climate change mitigation, should be established in the purposes section of the statute.
- The statute should present a set of core criteria as the basic criteria framework, and provide for further elaboration of these core criteria in regulations under the Act and in other guidance.
- The statute should provide for further case-by-case specification of the criteria in individual assessments to recognize the particulars of the context.
- A core climate change mitigation criterion should be incorporated in the statute along with the other core sustainability-based assessment criteria.

All climate-related criteria would need to be crafted carefully, including with anticipatory flexibility recognizing that climate change mitigation commitments are likely to become more demanding in the future, given that the *Paris Agreement* anticipates regular review and revision of signatories' commitments to reflect needs for increasing ambitions in coming years.

- The core climate change mitigation criterion in the statute should require that undertakings approved under the Act be consistent with meeting Canada's international climate change mitigation commitments, and not hinder transition to GHG neutrality in time to meet our international commitments.
- The regulation-making section of the statute should enable

- establishing more specific criteria that would be broadly applicable to every case (including more specific criteria concerning meeting climate obligations), and
- developing associated guidance for criteria application.
- The statute’s requirements for individual assessments should include an obligation, in each assessment case, to set out explicit criteria for evaluations and decisions. These case-specific criteria would be based on the generic criteria in the statute and regulations, but would be elaborated for the particular undertaking and its context. Under this requirement, climate-specific criteria would be elaborated in all assessments involving undertakings with potential effects on meeting the climate change mitigation criteria.
- The climate change requirements established in the statute and regulations must include flexibility and regular review to adjust decision making and conditions of approvals in response to more demanding future international commitments as well as evolving climate change understanding, technological innovations and other emerging practicable options.

(ii) The place of a core climate change criterion in the larger suite of core sustainability-based criteria

Inclusion of climate change mitigation as one of the core criteria set out in the statute would fit well with other requirements for progress towards sustainability that need to be identified as core considerations. The main role of the core criteria in the statute would be to establish firmly the major categories of criteria to be applied and to provide a basis for their elaboration in the regulations, policies and particular cases. The core criteria would extend across the anticipated broad scope of the legislation, which may be defined to cover the ecological, social, economic, health and perhaps cultural “pillars” of sustainability. But for evaluations and decision making the core criteria should focus more directly on the main generic requirements for progress towards sustainability,¹³ and recognize major pan-Canadian requirements such as those for human rights, gender equity and reconciliation and respect for Indigenous rights and interests.

For climate change mitigation, as for other key requirements for sustainability, having a core criterion in the statute would seem necessary for clarity and due emphasis. It would increase the salience of climate considerations and could help to discourage decision makers from trading off climate compromises for benefits in other areas (especially if the statute also features strong rules discouraging trade-offs – see the next section).

While having a core climate-centred criterion would provide an explicit base for more specific regulatory and policy direction on how to address Canada’s international climate commitment implications in particular assessments, it would not preclude elaboration of climate-related criteria in regulation under the other core criteria categories to encourage awareness that climate-related concerns are deeply entwined with all of the proposed core criteria.

¹³ See footnote 9, above.

- A climate-centred core criterion should be incorporated in the assessment statute with other core sustainability-based criteria in a manner that emphasizes their status as an integrated set of interacting and interdependent objectives.
- Provisions for regulations to specify and provide other guidance concerning the core criteria, including the core climate change mitigation criterion, should establish that elaborations of the core criteria should recognize their interactions and interdependencies.

(iii) *Particular issues to be addressed in the criteria*

The more specific climate-related criteria to be set out in regulation (and supported by associated policy guidance) would need to cover the full range of climate change mitigation issues that will be commonly faced in individual assessments. The main climate-related criteria addressed here would clarify the implications of Canada's international climate change mitigation commitments and cover the gap between the *Paris Agreement* and decision making on individual undertakings. They would incorporate the best available working answers to the questions in the earlier sections of this paper.

- The specific climate-related criteria to be set out in regulation should
 - cover the steps towards GHG neutrality within the deadlines implicit in Canada's international commitments, including steps to ensure sufficiently complete and timely reduction of GHG emissions, to protect and enhance existing GHG sinks, and create permanent new GHG sinks;
 - require positive contributions to the transition to a low-GHG future (e.g., adoption of no-GHG energy alternatives and other low to no emission technologies and structural options) as needed to meet Canada's current commitments and retain sufficient flexibility to accommodate more demanding future obligations;
 - specify what is needed to apply the multiple climate change mitigation policy tools and climate change mitigation tests set out in Box 1, above;
 - require proposed undertakings to avoid, or provide legitimate new domestic offsets to neutralize, any properly attributable GHG emissions or sink impairments past the Canadian deadline for GHG neutrality entailed by Canada's current international commitments; and
 - require proposed undertakings to be consistent with ensuring that Canadian GHG mitigation and sink enhancement initiatives reflect "best efforts" and not impede more promising options.
- Further direction through regulation and policy guidance should be provided to clarify;
 - how the climate change mitigation obligations are to be met in ways that also serve other sustainability-based purposes and criteria under the law; and

- how requirements, including conditions of approval, may be amended in light of evolving climate change understanding and changes in future international commitments, technological and other innovations that affect the availability of new options (e.g., for additional and/or less costly mitigation, or for more effective sink enhancements and newly proven offsets).

(iv) Means of dealing with the current absence of clear policy guidance on the assessment implications of Canada's overall climate mitigation commitments

Given the current absence of clear policy guidance on the implications of Canada's overall climate mitigation commitments for assessment of particular undertakings, the statute should include provisions to ensure due attention to core criteria concerning climate change mitigation.

Ideally, development and application of the criteria discussed above would be based on credibly developed policy guidance that addresses the gap between the Paris commitments and assessment of particular undertakings. Such policy guidance is currently lacking and is not likely to be provided prior to enactment of the new assessment law. In the interim, it is prudent to consider how the climate change mitigation tests in Box 1, above, could be specified and applied in the absence of adequate policy guidance, and how climate-related decisions should be made in assessments of particular proposed undertakings in the absence of detailed climate-related evaluation and decision making criteria set out in regulation under the new assessment statute.

The answer begins with recognition that Canada's climate commitments remain as obligations whether or not their implications have been formally elaborated. Consistency with meeting the commitments must be addressed in assessments, whether or not there is more fully specified policy guidance or direction from criteria established in regulation under the assessment statute. Essentially, the issues must be addressed case-by-case in the assessments of individual undertakings.

As is the tradition in environmental assessment processes in most jurisdictions, the proponent is required to make the case for the proposed undertaking in light of the law's purposes and more specific requirements. That would apply to cases with implications for meeting climate change mitigation commitments. Also as in open assessment deliberations generally, the proponent's submitted assessment would face review by government bodies and other authorities, experts, stakeholders and members of the public. The decision-making onus would be on the relevant government authorities to determine whether the proposed undertaking would or would not pass the established climate change mitigation tests (e.g., those in Box 1).

If credibly developed and detailed regulatory and policy guidance were available, the climate tests would be much easier to apply. Proponents would have the relatively modest task of determining the particular planning and assessment implications for their undertakings and subsequent review would be done in light of the existing guidance. In the absence of such guidance, each proponent would have a much more onerous task in making the case for the proposed undertaking, and face a much less predictable review. The tasks for reviewers in each case would be similarly greater.

Eventually, such a case-by-case approach could build greater mutual understanding and a set of precedents that would stand as reasonably reliable policy guidance. The case-by-case route to this end is, however, clearly less desirable than dedicated and credible policy making. The following points are offered as a fall-back option only.

- In the absence of a full set of credibly developed policy guidance or direction from criteria established in or under the assessment statute, deliberations and decision making on climate-related matters in particular assessments should proceed with critically examined use of the best available information in support of specifying and applying the tests set out in Box 1, above.
- Where the available guidance is ambiguous or contested by alternative guidance from reputable sources, the relative merits of options become issues to be resolved case-by-case in the particular assessment.
- Where the needed guidance is not available, decision making must rely on
 - case-by-case determination of Box 1 tests.

(v) *Areas of decision making in which the criteria should be applied*

The climate-related criteria may be designed mainly to guide deliberations and decision making on individual proposed undertakings, but they should also be applied in many other deliberations and decisions in the assessment regime.

- The climate-related criteria should be designed for use in
 - decision making in management of the overall assessment regime, including decision making on what categories of undertakings are to be subject to legislated assessment requirements, in guidance for assessment reviews, and in rationales for decisions (and decision conditions and follow-up requirements) on particular undertakings;
 - decision making in the assessment of individual undertakings, including in assessment reviews and deliberations concerning approval, rejection and/or determination of needed terms and conditions of approval, follow-up, effects and compliance monitoring, and responses to monitoring findings; and
 - the planning of undertakings subject to assessment, including in early determination of whether a contemplated undertaking may be able to meet climate change mitigation criteria, in the identification and comparison of

reasonable alternatives, in the selection of one option as the proposed undertaking and in the proponent's justification of the decision making leading to the proposal.

(vi) *Associated information requirements*

Key information requirements to be met in all assessments should be established in the statute, and where appropriate elaborated in regulations and policy directives. Section 1.7, below, sets out the main categories of needed information requirements for sustainability-based assessments and indicates where climate change mitigation requirements fit in those categories. It also covers the main provisions needed for specification and elaboration of key information and analysis requirements related to climate change mitigation. The points immediately below present the main considerations related to climate change mitigation commitments.

- The basic climate-related information requirements to be established in the statute, in the usual section on factors to be considered in assessments, should include information on
 - effects that would increase or decrease GHG emissions and/or GHG sink capacities that are attributable to the undertaking and assessed alternatives (including effects that are direct and indirect, cumulative, over the undertaking's entire lifecycle and lifetime and over relevant parts of the lifecycle and lifetime, domestic and beyond Canada);
 - means of reducing the anticipated GHG emissions and adverse effects on GHG sinks;
 - means of enhancing existing GHG sinks and/or establishing new GHG sinks;
 - proposed legitimate (new, domestic, permanent, etc.) offsets;
 - proposed follow-up plans including for monitoring and response to monitoring findings about the accuracy of effects predictions and the adequacy of achievements in meeting climate commitments, and
 - overall consistency with meeting the broad Canadian commitments to climate change mitigation with reference to the several tools and tests noted in Box 1, and with meeting any more fully specified climate-related (as well as other) criteria that have been developed through a strategic assessment or other credible public process.
- Associated regulations and policy directives should provide guidance on how to address the identified factors for consideration related to meeting climate change mitigation commitments:
 - how to determine what GHG emissions and effects on GHG sinks are properly attributable to a individual undertaking;
 - how to determine what initiatives would qualify as legitimate offsets for GHG emissions and adverse sink effects;

- how to determine consistency with climate-related criteria, including what information is needed and what analytical approaches are appropriate; and
- how, in the absence of broadly elaborated criteria, to proceed on a case-by-case basis to determine consistency with meeting the broad Canadian commitments to climate change mitigation.

1.4 What climate-related trade-off rules and processes that should be established in law?

1.4.1 Questions concerning trade-off rules and processes

Particularly challenging questions surround guidance for considering possible trade-offs. Sustainability-based assessment law and process should be designed to discourage trade-offs in favour of mutually-reinforcing gains across the criteria categories. Nonetheless, trade-offs are not entirely avoidable. We can anticipate cases where proposed undertakings would deliver important contributions to sustainability in some areas (e.g., by protecting intact ecological systems, providing lasting livelihood opportunities where these are lacking, or supplying particular minerals required for the transition to renewable energy), but be incompatible with meeting climate commitments (e.g., by blocking part of a pathway to transition from fossil to biomass or other renewable energy sources). Also, we can anticipate undertakings that would contribute to meeting climate commitments (e.g., by replacing fossil fuels with biomass fuels), but have adverse effects in another area of sustainability concern (e.g., by adding to pressures on forests or food systems). Consequently, special climate-specific trade-off rules are likely also to be important:

What sustainability-based trade-off rules should be applied in assessments and decision making on particular undertakings to encourage integration of climate change mitigation obligations with other sustainability-based objectives so that all are served to the extent possible in mutually reinforcing ways?

Where there are conflicts, how should the trade-offs be assessed? For example,

- If a proposed undertaking would entail a trade-off that would compromise meeting climate change commitments (i.e., proceeding with the undertaking would not meet the Box 1 tests), should this result in
 - assigning the case to a special process addressing serious trade-off issues?
 - mandatory re-examination of possible alternatives to identify ways of avoiding the trade-offs, including through additional legitimate offsets?
- Should it be possible to accept a trade-off that would allow approval of a proposed undertaking or alternative that would not comply with the core climate-related purpose and criterion requiring consistency with meeting Canada's international climate change mitigation commitments (e.g., inconsistency with national, regional or sectoral efforts needed to meet those commitments) if the undertaking offered positive contributions to other sustainability-based objectives?

- If trading-off compliance with the basic climate-related criterion were potentially acceptable, how should the opening for a trade-off be limited, for example,
 - by establishing specific thresholds beyond which compromises to climate commitments will not be considered and no proposal for an undertaking entailing such a compromise can be accepted for review;
 - by requiring identification and support for feasible new initiatives (e.g., legitimate offset initiatives not already anticipated in pathway delineations) to make up for any climate commitment compromise due to the undertaking in question?
- Should it be possible to accept a trade-off that would allow approval of a proposed undertaking or alternative that would make a positive contribution to the core climate-related objective but have negative effects on other sustainability-based objectives (e.g., extend or worsen existing inequities), and if so with what limitations?
- How should trade-off rules be established in the statute and regulations?
- What processes should be used to define and apply climate-related trade-off rules?
- How should trade-offs be addressed in conditions of approval?
- How should rationales for decisions and conditions be framed in light of the alternative criteria and trade-off rules?
- How should the assessment regime deal with the cumulative effects of case-by-case trade-off decisions?

1.4.2 Answers concerning trade-off rules and processes

Trade-offs pose some of the biggest challenges in assessment process design and those involving climate change mitigation are particularly difficult. Because climate change is increasingly disastrous the longer it remains unchecked, climate change mitigation is increasingly a non-negotiable imperative. But because climate change is also gradual and has delayed effects, mitigation action has been easily compromised. Accordingly, anticipating how to deal with climate-related trade-offs is crucial.

Efforts to set out climate-related trade-off rules and other guidance must recognize that undertakings subject to assessment processes must also deliver other needed contributions to sustainability. Requirements focused on climate change matters must therefore be well integrated with other considerations in the planning and assessment of relevant undertakings. Moreover, all assessments should centre on the comparative evaluation of alternatives so that the result is the undertaking or version of the undertaking that has the best prospects for contributing to sustainability, including climate change mitigation and adaptation, while avoiding significant adverse effects.

- To address the need for basic direction on trade-off rules and processes, the statute should

- establish that a core purpose of the assessment regime is to pursue sustainability-based objectives in ways that to the extent possible ensure that progress towards all objectives is achieved in mutually reinforcing ways;
- require identification and evaluation of potential trade-offs in all assessments, including in the comparative evaluation of alternatives and incorporation of legitimate offsets;
- establish particular requirements for decision making attention to trade-offs, emphasizing the desirability of avoidance and minimization, including in the selection among alternatives;
- require any assessment supporting a proposed undertaking that involves a climate-related trade-off (or any other significant trade-off) to document efforts to identify a viable alternative that avoids the trade-off;
- require justification of any accepted trade-off that would make meeting climate mitigation commitments more difficult in light of trade-off rules established under the Act, with explanation of how the compromise of prospects for meeting climate change mitigation commitments will be made up through other new initiatives;
- require that the conditions of approval in any decision involving a trade-off include requirements for regular review of and reporting on any emerging possibilities for meeting the compromised criterion or criteria;
- require clear delineation and evaluation of the future development opportunities foreclosed as a result of the trade-off;
- require continued monitoring of the cumulative implications of all trade-offs involving compromises to prospects for meeting climate change mitigation commitments, with regular public reporting and mandatory responses to findings;
- provide for establishment and elaboration of trade-off rules in regulations under the Act;
- provide for particular trade-off rules for cases involving potential compromise of prospects for meeting climate change mitigation commitments;
- provide for regulatory and policy guidance on the limits to possible compromises of consistency with meeting climate commitments; and
- provide for refusal to review any proposal for an undertaking that would exceed any such limits.
- To ensure capacity for more detailed direction on trade-off rules and processes, the statute should provide for regulations to specify trade-off rules including rules
 - precluding any trade-off that would displace any significant adverse effect to future generations (including the effects of non-compliance with climate change commitments) unless all other options are worse for those generations;
 - limiting possible compromises of consistency with meeting climate commitments, including compromises that would increase difficulties in meeting Canada's international and domestic commitments (e.g., difficulties for keeping within our GHG budget, staying on a viable pathway, being

- viable given the full social costs of the GHGs involved, or achieving a necessary sectoral transformation; and
- elaborating and providing guidance for all evaluations and decision making related to possible trade-offs that would compromise prospects for meeting climate change mitigation commitments.

1.5 To what potentially climate-significant project-level undertakings should assessment requirements apply?

Current federal assessment law in Canada applies only to projects (mines, hydrocarbon extraction and pipelines, hydropower dams, highways, etc.). In many international jurisdictions, and in some Canadian provinces, assessment requirements are also applied to strategic-level undertakings (especially policies, plans and programs). Following assessment tradition, this section will begin with questions concerning application to projects. Application to strategic level policies, plans and programs will be addressed in the following section.

1.5.1 Questions concerning application to potentially climate-significant projects

1.5.2 How should we determine which climate-important projects will be subject to assessment requirements?

Extending application of assessment law to climate-important projects would be relatively simple. The current law already provides a Project List, established by regulation.¹⁴ The list sets out the categories of project level undertakings that are subject to assessment requirements under the Act. The new law could easily provide for a similar though expanded list, including the categories of foreseeable projects that could have important consequences for meeting Canadian climate change mitigation commitments (in light of the considerations about compliance with pathways, GHG budgets, etc.). The particular questions to be answered in the category-defining process include the following:

- What are the categories of climate-important projects to include in a new Project List, or the equivalent?
- In each case, how should the category be delineated?
 - What basic criterion or set of criteria should be applied in the deliberation of categories of climate-important projects for including in the Project List?
 - What key factors should be taken into consideration?
- Who should be responsible for developing the Project List, and for determining the criteria and categories for application of legislated assessment requirements to potentially climate-significant projects; what processes should be used and what participants should be encouraged to participate?

¹⁴ *Regulations Designating Physical Activities* (SOR/2012-147), online: <<http://laws-lois.justice.gc.ca/eng/regulations/SOR-2012-147/page-1.html>>.

- How often should the climate-related elements of the Project List be reviewed and updated?

In addition, there will be climate-important projects not anticipated in the Project List. Ensuring that they are subject to assessment requirements usually involves provisions for case-by-case designation, which also raises questions to answer:

- What process and criteria should be used to require assessment of individual climate-important projects not covered in the Project List, or to add further categories of projects to the Project List?

1.5.3 Answers concerning application to potentially climate-significant projects

The most appropriate means of extending application of assessment law to climate-important projects is to use a new version of the Project List in the current law. The list sets out the categories of project level undertakings that are subject to assessment requirements under the Act. The contents of the Project List are established by regulation.¹⁵

Other possible approaches include use of a triggering mechanism, such as application for a permit or licence under specified laws. Regulatory triggers have the advantage of avoiding questions of jurisdiction, since federal permitting and licensing requirements tend to be accepted as within federal jurisdiction. Unfortunately, triggers tied to regulatory permitting have two major limitations. The first is that the regulatory licence requirements were put in place for a variety of non-climate purposes and represent only some matters of federal jurisdiction. The second limitation is that determination of assessment obligations may happen very late in project planning, long after assessment studies, consultations and incorporation of findings in project selection and design ought to have been initiated. Generally, then, it is better to use the Project List to cover the same categories of projects in a more anticipatory manner.

- The new assessment statute should provide for establishment by regulation of a Project List that identifies and delineates categories of projects to which law-based assessment requirements apply, including projects that could have important consequences for meeting Canadian climate change mitigation commitments.
- Provisions for the development of the Project List should ensure that the categories of climate-relevant projects included in the list should cover all projects that individually or cumulatively¹⁶ could have a substantial effect on

¹⁵ For the current list see *Regulations Designating Physical Activities* (SOR/2012-147), online: <<http://laws-lois.justice.gc.ca/eng/regulations/SOR-2012-147/page-1.html>>.

¹⁶ Projects that would have modest individual implications for meeting climate commitment, but contribute to cumulative problems, would be more effectively and efficiently addressed through strategic level assessments, if they were undertaken. In the absence of strategic level assessments, use of the project level option may be necessary.

- prospects for meeting Canada’s climate change mitigation commitments, including effects that would make meeting these commitments more difficult.
- Identification and definition of climate-relevant project categories to include in the list should take into account multiple factors, including potential for
 - annual attributable (including direct and indirect)¹⁷ GHG emissions and/or sink impairments over a certain threshold;
 - lifetime attributable emissions and/or sink impairments over a certain threshold;
 - attributable emissions and/or continued sink impairments in Canada beyond the established or reasonably anticipated deadline for GHG neutrality in Canada overall and in the relevant sector;
 - contribution to cumulatively significant GHG emissions or sink impairments at a level that would make meeting specific mitigation commitments (e.g., for a sector or region) more difficult to meet;
 - contribution to further entrenching or extending fossil dependency or activities that impair GHG sinks;
 - important roles in a sector that is understood to require significant transformation to ensure climate mitigation commitments are met;
 - inconsistency with steps required to stay on a recognized or reasonably anticipated pathway to meeting Canada’s climate mitigation commitments, remain within a defensible Canadian carbon or other GHG budget, or demonstrate viability if the social cost of the emissions or sink impairments and the costs of transition to GHG neutrality were fully charged; and
 - inability to meet any other requirement entailed by the climate change mitigation tests set out in Box 1, above.

Any one of these would qualify as sufficient grounds for requiring assessment of the project.

- Identification and definition of climate-relevant project categories to include in the list should, where possible, use identifying characteristics that should be evident at the outset of project planning, so that the application of assessment requirements is known and respected from the earliest stages of project conception and development.

¹⁷ Attention to indirect emissions and sink impairments involves complexities both in decision making on which undertakings require assessment and in decision making within the assessment process. Most fundamental among these complexities is the matter of indirect effects outside Canada (e.g., effects outside Canada resulting from the facilitation of GHG-emitting undertakings in the supply of non-domestic components for a Canadian project or in the use of Canadian products abroad). For the immediate purposes of meeting Canadian commitments for climate change mitigation, emissions and sink impairments abroad do not count towards the national inventory. They are the responsibility of the jurisdiction in which the emissions and sink impairments occur. But in the larger context of climate change mitigation and the *Paris Agreement*, those emissions and sink impairments do matter to the world and consequently to Canada. In any event, indirect emissions and sink impairments properly attributable to individual projects (or strategic initiatives) would need to be defined in the regulations, with elaborations on methods of calculation provided in policy guidance. They would include, for example, the upstream and downstream effects of fossil hydrocarbon pipelines that facilitate GHG emissions upstream in extraction and processing and downstream emissions in processing and combustion.

- Identification and definition of climate-relevant project categories to include in the list should define categories, especially those involving thresholds, in ways that preclude project splitting and other threshold-avoiding behaviours to avoid assessment obligations.
- The process for developing the Project List should be transparent and consultative and development of the climate-relevant project list categories should be led by the government agency most expert in and responsible for meeting Canada's climate change mitigation commitments.
- Development of the Project List under the federal assessment law should involve collaboration with other Canadian jurisdictions with overlapping responsibilities. This is a matter of practicality as well as principle. Authority for assessment processes and for decision making related to climate-significant undertakings is shared among jurisdictions under the Canadian Constitution. While the federal government can act to assess climate-significant undertakings,¹⁸ many aspects of such undertakings are likely also to be subject to provincial, Indigenous and/or territorial authority. Moreover, effective action on climate change mitigation is likely to depend on informed and committed interjurisdictional collaboration. That should include collaboration in the assessment of climate-significant undertakings and should begin with the Project List.

Inevitably, some projects and project categories that merit assessment will not be anticipated in the development of the Project List. Some unanticipated projects can be addressed through provisions for individual case designations or addition of new categories to the list.

- For climate-important projects (and other projects with potentially important implications for progress towards sustainability) that are not anticipated in the Project List, the statute should establish provisions for designation of individual projects and for adding new categories to the Project List.
- The processes for designation of individual projects and adding new categories to the Project List should
 - be transparent and provide for meaningful public participation;
 - be open to proposals for a designation from proponents, other jurisdictions, organizations and members of the public, as well as from within government;

¹⁸ The issue of federal jurisdiction over climate change is complex. There are no constitutional jurisdictional issues when it comes to the information-gathering step of the assessment but the decision-making step may be limited to the federal jurisdiction to act on climate change. Federal jurisdiction to implement a carbon price under its taxation power, and to regulate GHG emissions under its criminal law power, is well established. Additional possible grounds for federal jurisdiction include the interprovincial and international nature of the impacts of climate change, and residual federal powers over matters of national concern and emergencies under the principle of Peace, Order, and Good Government (POGG). While none of these powers establishes unlimited federal jurisdiction over climate change, they collectively do offer clear federal jurisdiction to act.

- apply explicit criteria centred on the potential of the project, individually or cumulatively, to make meeting Canada’s climate change mitigation commitments more difficult; and
- require public reasons for decisions, based on the criteria.
- Since a designation request and decision may come late, after the project has been planned and proposed, the early planning phase of the assessment process for a designated project may need to be adjusted, since proponents of designated projects, unlike proponents of projects included on the Project List, would not have known their assessment obligations from the beginning.
- The process for adding new categories of projects to the Project List should be supported by requirement for review and potential amendment at least of the climate-related contents of the Project List every three years.

1.6 To what potentially climate-significant strategic-level undertakings should assessment requirements apply?

1.6.1 Questions concerning application to strategic undertakings (the development of policies, plans and programs, including regional strategic plans or the equivalent)

Although the current federal assessment law applies only to projects, it is reasonable to assume that to help meet Canada’s international climate change mitigation commitments, assessment requirements will need also to be applied at the strategic level of policies, plans and programs. Since 1990, the federal government has formally required assessments of federal policies, plans and programs under a policy-based Cabinet Directive.¹⁹ The recognized deficiencies of that process²⁰ have led to calls for more transparent and rigorous strategic level federal assessments.²¹

Pressures for law-based strategic level assessments result mostly from two factors. The first is recognition that strategic undertakings – the development of policies, plans and programs, including regional strategic plans or the equivalent – can often exert a much more powerful influence to avoid undesirable effects and to encourage pursuit of positive alternatives than individual projects. The second is evidence that serious cumulative effects usually cannot be assessed adequately or addressed effectively and efficiently at the project level. Meeting climate change mitigation commitments represents both an important subject for attention in the development of influential policies, plans and programs and the most dramatic and fully global example of cumulative effects. It is

¹⁹ Government of Canada, *The Cabinet Directive on the Environmental Assessment of Policy, Plan and Program Proposals*, online: <<https://www.canada.ca/en/environmental-assessment-agency/programs/strategic-environmental-assessment/cabinet-directive-environmental-assessment-policy-plan-program-proposals.html>>.

²⁰ Reported by the Commissioner for Environment and Sustainable Development in various reviews, including <http://www.oag-bvg.gc.ca/internet/English/parl_cesd_200410_04_e_14917.html>.

²¹ See, for example, Robert B. Gibson, Hugh Benevides, Meinhard Doelle and Denis Kirchoff, “Strengthening strategic environmental assessment in Canada: an evaluation of three basic options,” *Journal of Environmental Law and Practice*, 20:3 (2010): 175-211.

therefore leading candidate for attention in the application of strategic-level assessment requirements.

As noted above, the government has already signalled interest in undertaking a strategic assessment on climate change policy matters. That strategic assessment would consider how to translate broad climate change mitigation commitments into implications for assessment of proposed projects.²² Such an assessment could address many of the questions raised in this paper, including how to apply assessment requirements to subsequent strategic undertakings that could have climate-significant implications.

As discussed earlier, climate-related strategic assessments would best be undertaken under an overarching climate agenda supported by a comprehensive legislative initiative covering Canadian climate commitments and their implementation. Among other contributions, a comprehensive climate law would clarify the implications of Canada's international climate change mitigation commitments for all strategic undertakings.

Whether or not an initial climate-centred strategic assessment is undertaken or a comprehensive climate law introduced, the questions discussed below will arise and need to be faced. The initial question is as follows:

(i) How should the law provide for application of assessment requirements to climate-important policies, plans and programs, including regional strategic initiatives?

If these strategic undertakings are to be recognized as both authoritative and credible as bases for guiding deliberations and decisions at the project level, the undertakings must be developed and assessed in a process that is sufficiently rigorous, open and participative to earn public trust. That raises a second key question:

(ii) What process characteristics and requirements need to be established in the statute and regulations to ensure that the assessments of strategic level undertakings, including those affecting climate change mitigation commitments, are rigorous and credible?

An early candidate for the legislated strategic assessment process is the proposed strategic assessment of climate policy framework implications for project assessments, though it should and may be initiated prior to proclamation of the new assessment law. Other important climate-significant strategic undertakings (e.g., development of an infrastructure funding program and associated policies, etc.) would similarly merit law-based assessment. As with projects, however, application of assessment requirements would not be needed on climate grounds for policies, plans and programs with minimally consequential implications for meeting Canada's climate change commitments. Therefore, provisions will be needed to identify what strategic undertakings are to be subject to legislated assessment requirements and the following questions arise:

²² *Discussion Paper*, p.9. In that paper the government's raised the possibility of a strategic assessment to clarify the implications of the Pan-Canadian Framework for Clean Growth and Climate Change for assessments under federal law. Since then there have been suggestions that the focus may not be limited to the Pan-Canadian Framework.

- What are the categories of climate-relevant policies, plans and programs to include in a Strategic Undertakings List as requiring law-based assessment?
- Should the list include strategic undertakings with likely positive effects on meeting Canadian climate commitments (to ensure that the most positive option are favoured) as well as strategic undertakings that could have adverse effects (to push them into compliance with pathways, GHG budgets, or other guidance for meeting the commitments)?
- In each case, how should the categories be delineated, including through what processes, applying what criteria, with decision making by what authority and subject to what requirements for review and updating?
- What additional provisions are needed to ensure appropriate application of law-based assessment requirements to
 - new or revised climate-relevant policies, plans and programs that were not anticipated in the Strategic Undertakings List, and
 - initiation of policies, plans and programs that are needed to fill an important strategic gap (areas in which multiple evident specific problems indicate need for credible policy clarification, forward planning, or suitable program response)?
 and to establish appropriate processes, criteria and authority for the associated decision making?

Finally, prudence demands that proposals for legislated strategic assessments be accompanied by attention to back-up options. Successive Canadian federal governments in Canada have been hesitant to legislate assessment of strategic undertakings and in the present law reform exercise may choose to take only modest steps (e.g., very limited initial application of strategic assessment powers).

- What fall-back options should be adopted if the government chooses not to apply legislated assessment requirements to the anticipated range of climate-relevant strategic undertakings?

1.6.2 Answers concerning application to potentially climate-significant strategic undertakings (policies, plans, programs and regional strategic initiatives)

Credibly developed and openly assessed strategic undertakings are clearly needed and federally legislated provisions for strategic assessments are long overdue.²³ As noted above, the federal government has already expressed interest in undertaking a strategic

²³ House of Commons Standing Committee on Environment and Sustainable Development, *Sustainable Development and Environmental Assessment: Beyond Bill C-9* (Ottawa: Parliament of Canada, March 2003) at 34; Robert B. Gibson, Hugh Benevides, Meinhard Doelle and Denis Kirchoff. 2010. "Strengthening strategic environmental assessment in Canada: an evaluation of three basic options," *Journal of Environmental Law and Practice*, 20(3): 175-211; Multi-Interest Advisory Committee (MIAC), *Advice to the Expert Panel Reviewing Environmental Assessment Processes*, 9 December 2016, 64pp.

assessment to address the implications of Canada's climate change commitments for project level assessments. Providing a legislated base and a transparent process for such a strategic assessment would enhance its credibility and authority to guide project assessments and decision making other particular initiatives.

The general approach to applying legislated assessment requirements to strategic undertakings could follow the one for application to projects.

The new assessment statute should provide for establishment by regulation of a Strategic Undertakings List that identifies and delineates categories of policies, plans and programs to which law-based assessment requirements apply, including categories of strategic undertakings that could have important consequences for meeting Canadian climate change mitigation commitments. Its development should also ensure incorporation of the following considerations and components:

- The new assessment statute should provide for establishment by regulation of a Strategic Undertakings List that identifies and delineates categories of policies, plans and programs to which law-based assessment requirements apply, including categories of strategic undertakings that could have important consequences for meeting Canadian climate change mitigation commitments.
- Provisions for the development of the Strategic Undertakings List should ensure that one core category of strategic undertakings subject to law-based assessment covers all strategic undertakings that individually or cumulatively²⁴ have a substantial effect on prospects for meeting Canada's climate change mitigation commitments.
- That category would include all strategic undertakings that
 - could facilitate GHG emissions or sink impairments at levels or over periods incompatible with meeting one or more of the climate tests in Box 1, above;
 - could otherwise make meeting Canada's climate change mitigation commitments more difficult; or
 - could fail to identify and adopt the most positive feasible means of reducing GHG emissions or sink impairments,
- The statute should set out the basic characteristics and requirements of a strategic level assessment process to ensure that the assessment of these strategic level undertakings
 - is open and transparent,
 - supports meaningful participation,
 - applies explicit sustainability-based criteria including those based on the core climate change mitigation criterion that encourages positive

²⁴ Projects that would have modest individual implications for meeting climate commitment, but contribute to cumulative problems, would be more effectively and efficiently addressed through strategic level assessments, if they were undertaken. In the absence of strategic level assessments, use of the project level option may be necessary.

- contributions to meeting Canada's climate change mitigation commitments and blocks projects that would make meeting these commitments more difficult,
 - compares a suitable range of reasonable alternatives, and
 - is otherwise likely to be rigorous and worthy of public credibility.
- The statute should also provide for regulations that would set out the strategic assessment process details.
- Identification and definition of climate-relevant categories of strategic undertakings to include in the list should take into account multiple factors similar to those set out above for the climate-related categories in the Project List, except that greater emphasis would need to be placed on the potential for indirect effects on GHG emissions and sink impairments through support for or other facilitation or maintenance of activities that could
 - contribute to GHG emissions and/or sink impairments or to entrench lifetime attributable emissions and/or sink impairments in Canada over a certain threshold;
 - contribute to GHG emissions and/or sink impairments beyond the established or reasonably anticipated deadline for GHG neutrality in Canada overall and in the relevant sector;
 - contribute to cumulatively significant GHG emissions or sink impairments at a level that would make meeting specific mitigation commitments (e.g., for a sector or region) more difficult to meet;
 - contribute to further entrenching or extending fossil dependency or activities that impair GHG sinks;
 - play important roles in a sector that is understood to require significant transformation to ensure climate mitigation commitments are met;
 - be inconsistent with steps required to stay on a recognized or reasonably anticipated pathway to meeting Canada's climate mitigation commitments, remain within a defensible Canadian carbon or other GHG budget, or demonstrate viability if the social cost of the emissions and sink impairments, or costs of transition to GHG neutrality were fully charged; and
 - be unable to meet any other requirement entailed by the climate change mitigation tests set out in Box 1, above.

Any one of these would qualify as sufficient grounds for requiring assessment of the strategic undertaking.

- Where possible, the delineation of strategic undertaking categories for assessment should use identifying characteristics that should be evident at the outset of development of the strategic undertaking so that the need to meet assessment obligations is known and respected from the earliest stages of deliberations about potential strategic undertakings.
- The process for developing the Strategic Undertaking List should be transparent and provide for meaningful public participation.
- Development of the climate-relevant list categories should be led by the government agency most expert in and responsible for meeting Canada's climate

change mitigation commitments, though the ultimate decisions on assessment of strategic undertaking will lie with the Governor-in-Council.

- As with development of the Projects List, development of the Strategic Undertakings List should involve collaboration with other Canadian jurisdictions with overlapping responsibilities.

As with projects, there will be climate-important policies, plans and programs not anticipated or for other reasons not included in the initial version of the Strategic Undertakings List. In addition, there will be policy, plan and program gaps – subjects of importance that are in evident need of credible policy clarification, forward planning, or suitable program response. Some of these gaps – such as the need for policy direction on the implications of climate change commitments for project assessments – may be recognized and addressed by the government. In other cases, however, gaps may be first identified in project assessments or other processes, or recognized most clearly by other jurisdictions, non-government bodies or individuals. For both unanticipated strategic undertakings and undertakings needed to fill strategic gaps, provisions for case-by-case designation will be needed.

- The statute should establish provisions for designation of individual strategic undertakings and for adding new categories to the Strategic Undertakings List to cover individual cases and categories that were not anticipated in the List or that are needed to address identified strategic gaps.
- The processes for designation of individual strategic undertakings and adding new categories to the Strategic Undertakings List should
 - be transparent and provide for meaningful public participation;
 - be open to proposals for a designation of an individual strategic undertaking or a new category in the Strategic Undertakings List from authorities, interests and individuals outside the government;
 - apply explicit criteria centred on the potential of the undertaking, to make meeting Canada's climate change mitigation commitments more difficult; and
 - require public reasons for decisions based on the criteria.
- Since a designation request and decision may come late, after the strategic undertaking has been planned and proposed, the early planning phase of the assessment process for a designated undertaking may need to be adjusted.
- The process for adding new categories to the Strategic Undertakings List should be supported by a requirement for review and potential amendment, at least of the climate-related contents of the list, every three years.
- For the designation of strategic undertakings needed to address perceived policy, plan or program gaps, the law would need to establish responsibility for
 - determining what bodies are to be assigned to propose the needed strategic undertaking;
 - ensuring that those bodies are adequately resourced for the task; and
 - making and providing public rationales for decisions on the designation requests;

- The law should also identify any special criteria for designating new strategic undertakings to address gaps.

Taken together, these considerations for development of an effective approach to climate-responsible strategic assessments point to needs for open application of legislated assessment requirements to many strategic level issues and undertakings. Given that Canadian federal governments have been disinclined to take that step, the alternatives merit consideration. To ensure that adequate provisions are in place in the event of incomplete efforts to provide strategic guidance, the statute should include the following fallback components:

- If the government chooses not to apply legislated assessment requirements to the anticipated range climate-relevant strategic undertakings, it should
 - ensure under the new assessment law that implications for meeting Canada’s climate change mitigation commitments are included as mandatory factors for consideration in all assessments of projects that may involve GHG emissions or sink impairments;
 - require assessment and public reporting on implications for meeting Canada’s climate change mitigation commitments prior to decision making on all federal strategic undertakings that may have direct or indirect effects on GHG emissions or sink impairments;
 - establish a public process for identifying climate-related strategic gaps and developing strategic responses to those gaps;
 - initiate a single climate-centred strategic assessment under the new assessment law, to provide sufficiently comprehensive and authoritative guidance for ensuring that strategic undertakings help to meet Canada’s climate change mitigation commitments;
 - develop comprehensive climate change legislation that includes a credible process for providing comprehensive and authoritative guidance for the development of such undertakings, reflecting the core criterion of meeting Canada’s international climate change commitments; and
 - devise other incentives, obligations and associated tools to ensure new and revised policies, plans and programs contribute consistently to meeting Canada’s climate change mitigation commitments.

1.7 What climate-related information and standards for evaluations should be incorporated?

1.7.1 Questions concerning information and standards

Once it is clear that a climate-important project or strategic level undertaking is subject to legislated assessment requirements, two further sets of overlapping questions arise. Both concern assessment expectations. The first is about what information about the proposed undertaking and alternatives and their predicted effects is to be provided in initial impact assessment submissions by the proponent and in assessment reviews prepared by assessment authorities (with public engagement) for decision makers. The second is

about what standard rules or guidance (e.g., concerning concept definitions and methods) are to underlie assessments, including information gathering, analysis, decision making and follow-up. In sustainability-based assessments, the factors to be considered and the guidance needed must also address the potential for positive contributions to sustainability. Among these, contributions to meeting climate change mitigation commitments are key. We begin with information requirements.

What climate-related considerations and climate change mitigation influences on other considerations should be recognized as mandatory factors for consideration and provision of information in assessments?

For undertakings with potentially significant implications for meeting Canada's climate change mitigation commitments, more specific information-related questions include the following:

- What factors should be recognized in the statute as mandatory considerations in assessments and mandatory contents in assessment submissions?
- How should the range of reasonable alternatives be identified in cases with implications for meeting climate commitments?
- How should the potentially relevant cumulative effects on meeting climate commitments be identified and addressed in individual cases?
- What categories of GHG emissions and sink damages (e.g., direct, indirect, annual, lifetime, etc.) should be attributed to a proposed project or strategic undertaking and its alternatives, and described and evaluated in the assessment?
- What, if any, offsets may qualify for recognition in assessments?
- What approaches should be used to evaluate the implications of these emissions and damages in light of Canada's international commitments
- How should trade-offs be identified and evaluated?
- What information requirements should be set out in legislation and what requirements should be left to regulations and policy guidance?
- In particular, how can the law require and ensure the open testing of climate-related information and tools (including climate models) in individual assessments?

What required considerations, standards, rules, definitions and related guidance (e.g., on models and methods of analysis) should be established to foster better understanding and response to climate-related requirements and criteria and to guide decision making?

Consistency and efficiency of assessment deliberations and decisions will depend on clarity about the requirements and expectations. That includes clarity about the factors for consideration in assessments and the criteria and trade-off rules governing decision making.

- What considerations related to climate change mitigation should be mandatory contents of assessments and what associated information (including methods, models and underlying assumptions) should guide decisions on how to determine how to use the various possible approaches to determining the likely compliance of proposed undertakings and alternatives with Canada’s climate change mitigation commitments over their lifetimes?
- What guidance on standard approaches should be provided for recognizing and addressing uncertainties in reporting climate-related factors and applying climate-related criteria?
- How should assessments treat the gap between Canada’s current overall climate change mitigation commitments in the *Paris Agreement* and the more specific but generally weaker domestic commitments?
- How should climate change mitigation criteria be integrated into case-specified criteria for comparative evaluation of alternatives?
- What guidance should be provided for follow-up monitoring and reporting of and responses to, the climate-related effects of approved undertakings?

1.7.2 Answers concerning information standards and factors to be considered in assessments

The essential information requirements for assessments are implied by the purposes and scope of the legislation and the criteria to be applied in deliberations and decision making. Traditionally, however, the main categories of information requirements are also set out in the statute’s section on “factors for consideration.” Each factor for consideration entails needs for information and analyses. Often matters of definition must also be addressed and suitable methods for analysis identified.

Canadian federal assessment law has traditionally included a “factors to be considered” section (section 19 in the current law) that sets out the mandatory categories of matters to be addressed in every assessment. To be consistent with its sustainability-based purpose and scope, a credible new assessment statute must set out factors to be considered covering the full suite of matters that affect a proposed undertaking’s potential contributions to lasting wellbeing. These broad factors in the statute should include mandatory consideration of the undertaking’s potential effects on meeting Canada’s climate change mitigation commitments. As with the criteria, core requirements for consideration set out in the statute should be elaborated in regulations and policy directives, provided for by the statute.

- In the new statute, the list of factors to be considered in assessments should include matters related to
 - description of the characteristics of the proposed undertaking and its reasonable alternatives, including characteristics that may affect GHG emissions and sinks and consequently may affect prospects for meeting Canada’s international climate change mitigation commitments;
 - development and application of case-specified sustainability-based criteria and trade-off rules (clarifying how the core criteria are to be elaborated in

light of the undertaking and alternatives and their context) context including specified criteria and trade-off rules related to meeting Canada's international climate change mitigation commitments;

- the potential and predicted effects of the proposed undertaking and its reasonable alternatives, including all of the usual general categories of sustainability-related effects, (positive and adverse, individual and cumulative, direct and indirect, short and long term, simple and interactive, more or less certain or uncertain, etc.) and their significance (magnitude, extent, timing, duration, intensity, distribution, reversibility, etc.) plus effects on potential consistency with meeting Canada's international climate change mitigation commitments, and more particularly
- the potential and predicted effects of the proposed undertaking and its reasonable alternatives on GHG emissions and GHG sinks (including effects that are direct and indirect, cumulative, over the undertaking's entire lifecycle and lifetime and over relevant parts of the lifecycle and lifetime, domestic and beyond Canada);
- proposed measures to mitigate potential adverse effects and to enhance potential beneficial effects, including on GHG emissions and GHG sinks and prospects for consistency with efforts to meet Canada's international climate change mitigation commitments;
- comparative evaluation of alternatives, through application of sustainability-based criteria, including the criterion on consistency with meeting Canada's international climate change mitigation commitments, as the means of and justification for selecting the proposed undertaking;
- determination of overall contributions to sustainability, including consideration of consistency with efforts to meet Canada's international climate change mitigation commitments;
- determination of whether any climate-related and other trade-offs would be entailed;
- determination of how the climate-related and other effects and trade-offs of the proposed undertaking compare with those of the alternatives; and
- follow-up monitoring needs and plans, including components addressing the accuracy of predictions concerning GHG emission and sink effects and consistency with meeting Canada's international climate change mitigation commitments.

1.7.3 Specifics on definitions, standards and methods of analysis

For the purposes of meeting climate change mitigation commitments, the statutory listing of core factors for consideration (and supporting definitions provided in the statute) would need to incorporate more specific components. As with the evaluation and decision making criteria, only the broad requirements should be set in the statute. The

particulars would be more suitably addressed in regulations that can be adjusted more easily to incorporate new understandings and learning from experience.

- The statute should provide for regulations and policy directives on more specific matters entailed by the general considerations listed in the statute, and how they should be addressed, including more specific considerations related to the effects of the undertaking on meeting Canada's climate change mitigation commitments.
- (i) *Determination of what GHG emissions, sink losses and offsets are to be reported and counted in assessments.*
- To clarify what GHG emission and sink effects are to be considered, the statute should include provisions for specific guidance in regulation covering the following:
 - mandatory attention to the individual and cumulative effects of the undertaking and its alternatives on GHG emissions and sinks, including particular and cumulative, direct and indirect, annual and lifetime effects;²⁵
 - means, including criteria, for determining what GHG emissions and carbon sink impairments are properly attributed to a proposed project or strategic undertaking and its alternatives,²⁶ including attention to how emissions and sink impairments beyond Canada should be considered; and more specific guidance for determining what indirect GHG effects, domestic and non-domestic) are properly attributable to particular kinds of undertakings (e.g., pipelines and other hydrocarbon transportation projects with export markets, highways, hydropower dams, shipping terminals, mines) over their lifetime and after closure;
 - means, including criteria, for determining what qualifies as a positive effect on anthropogenic GHG sink enhancement that may be taken into account in assessments (e.g., guidance on determining the likely performance and permanency of proposed enhancements); and
 - means, including criteria, for determining what, if any, offsets for domestic GHG emissions or GHG sink degradation may be taken into account in assessments (e.g., guidance on determining the likely performance and permanency of proposed offsets).
- (ii) *How to assess the implications of predicted GHG emissions, sink losses and offsets for meeting Canada's climate change mitigation commitments.*

As suggested above, the basic climate test for each proposed undertaking is that it must be consistent with meeting Canada's international climate change mitigation

²⁵ Here and elsewhere, a proposed requirement for climate change mitigation purposes may also merit broad application in support of many other purposes. For example, the range of potential effects listed here should probably be generally required in the statute for all applications.

²⁶ The regulation making should recognize that the specified requirements may appropriately differ for different categories of undertaking (e.g., rules for attribution of indirect GHG emissions and sink effects for metal mining could be different from those for hydrocarbon extraction and transportation undertakings).

commitments and with the timely transition to GHG neutrality that is entailed by these commitments. However, more specific tests are clearly needed. Box 1 identifies a set of tests that would provide complementary means of applying the core test using available tools (that need further development and specification for Canadian application), and on existing Canadian policy guidance (that need to be adjusted to reflect our current and anticipated international commitments).

The implications may now be considered directly in light of Canada's *Paris Agreement* commitments as further informed by existing domestic commitments with adjustments to address the gap between Canada's current Nationally Determined Contribution and the more demanding commitments of the *Paris Agreement*. Further near-term specification of complementary test could be assigned to the strategic assessment on climate change commitment implications mentioned in the federal government's *Discussion Paper*.²⁷ As that happens, and as other credible processes are used to expand the available official guidance for applying climate tests in the assessment of particular undertakings, the results can be incorporated in regulations under the statute.

- The statute should provide for regulations that elaborate on the core statutory test requiring undertakings to be consistent with meeting Canada's international climate change mitigation commitments. The tests to be described, and supported by guidance on specific requirements and application methods, should include ones set out in Box 1.
- The statutory provisions for regulatory clarification of these tests should anticipate needs for more specific guidance, for example to illuminate
 - how to determine whether and how well proposed undertakings (and alternative options) will contribute to timely progress along the identified pathways and to respect for GHG budget limitations through their lifetimes;
 - how to incorporate calculation of the costs of mitigation and/or damages associated with GHG emissions (and carbon sink losses) in evaluations of overall project costs and associated project viability (e.g., using the social cost of GHGs used in Canada and the US or the shadow price or marginal abatement cost used in UK and Europe);
 - how to calculate global, national and local costs (e.g., costs associated with future stranded assets, further entrenchment of GHG-emitting sectors, structures and practices) in cost and risk calculations; and
 - how to estimate future costs and gains.
- The statutory provisions for regulatory clarification of the tests should also anticipate needs for guidance on
 - how to recognize and address uncertainties (e.g., about likely future changes in international climate change mitigation commitments) reporting of climate-related factors and application of climate-related criteria; and

²⁷ *Discussion Paper*, p.9.

- how to address the conflicting implications of different climate change mitigation commitments (e.g., the overall Canadian commitment in the *Paris Agreement*, the weaker commitment in Canada's Nationally Determined Contribution (NDC)²⁸, the incomplete response to the NDC commitment in the Pan-Canadian Framework and its implementation so far).²⁹
- In light of the number of test approaches, the benefits of complementary applications, and the probably uneven pace of their elaboration, the likelihood that some may serve more effectively in applications in some cases than others, the statute should include provisions for use of multiple approaches to assessing the GHG-related aspects of proposed undertakings.

In the absence of formally accepted national policies and detailed regulations on these matters, the test approaches listed above are available, individually or collectively, for pilot use in determining the implications of emission and sink effects on meeting Canada's climate change mitigation commitments. In the absence of established protocols for using these approaches, debating and testing versions of them in individual assessments could contribute to greater understanding as well as serve as workable means of informing the necessary judgements about the climate commitment effects of assessed undertakings. Reliance on case-by-case application and clarification of these tests, however, raises many difficulties. For equity as well as effectiveness, the tests should be designed and used in applications to all activities and undertakings that affect prospects for meeting Canada's climate change mitigation commitments. In addition to assessment cases, they should apply to existing activities and undertakings and ones otherwise not subject to legislated assessment requirements.

- Case-by-case specification and application of these tests can continue to guide individual assessments and to enrich the base of learning while the overall climate tests are elaborated and associated policy of broad application is developed. However, timely attention to the strategic level attention to establishing consistent and defensible guidance for all cases and for major sectors and regions of activity should ensure substantial gains in effectiveness, efficiency and fairness by clarifying expectations, improving the consistency of interpretations and decisions, and reducing burdens at the project assessment level.

²⁸ The current NDC dates from the period when a global maximum of 2°C warming was the target.

²⁹ *Pan-Canadian Framework on Clean Growth and Climate Change* (Dec. 2016).

(iii) *Climate-related aspects of the suite of difficult issue areas that are commonly confronted in assessments, including broad alternatives, major cumulative effects and important policy concerns.*³⁰

- To address needs for clarification of how alternatives are to be identified and properly considered in cases involving implications for climate commitments, the statute should provide for regulations to guide identification and comparative assessment of the range of reasonable alternatives to be considered in individual cases with implications for meeting climate commitments,³¹ with particular attention to means, including criteria and processes, to be used to determine
 - what alternatives are within the capacity and authority of the proponent;
 - what broader alternatives lie beyond the capacity and authority of the proponent but merit attention in the assessment; and
 - what government bodies are to address these broader alternatives, what credible process is to be used, and how the results are to be incorporated in the assessment.
- To address needs for clarification of how broad cumulative effects are to be identified and properly considered in cases involving implications for climate commitments, the statute should provide for regulations to guide identification and comparative assessment of the range of climate-related cumulative effects to be considered in individual cases, with particular attention to guidance on the criteria and processes to be used to determine
 - what potential cumulative effects are within the capacity and authority of the proponent;
 - what potential cumulative effects lie beyond the capacity and authority of the proponent but merit attention in the assessment; and
 - what government bodies are to address these broader cumulative effects and suitable responses to them, what credible process is to be used, and how the results are to be incorporated in the assessment.
- To address needs for clarification of how large policy issues are to be identified and properly considered in cases involving implications for climate commitments, the statute should provide for regulations to guide identification and comparative assessment of any big policy issues that arise in individual cases, with particular attention to guidance on the criteria and processes to be used to determine
 - what big policy issues merit attention in the assessment; and

³⁰ For project-level assessments, the needed guidance on key alternatives, cumulative effects and large policy issues may come from strategic and regional assessments. Some such strategic and regional assessments could involve multiple proponents and collaboration among multiple jurisdictions.

³¹ Guidance on the broad options for reasonable alternatives will have to recognize that the character of relevant alternatives differs for project assessments and assessments of strategic undertakings – and are different for the various categories of projects and various types of strategic undertakings (strategic policies, programs, sectoral and regional plans).

- what government bodies are to address these big policy issues and suitable responses to them, what credible process is to be used, and how the results are to be incorporated in the assessment.
 - To address needs for clarification of what, if any, offsets for GHG emissions or GHG sink degradation may be taken into account in assessments, the statute should provide for regulations to that establish the criteria (e.g., permanency) and other guidance for evaluating the potential legitimacy of proposed offsets.
 - To address needs for careful attention to potential trade-offs in cases involving implications for climate commitments, the statute should provide for regulations to guide the identification and consideration of climate-related trade-offs in assessments submitted by proponents, in assessment reviews and in decision making as elaborated above.
- (iv) *Other needs for guidance for key aspects of assessment deliberations and decision making that are likely to affect climate-related considerations.*
- For application in decision making in all aspects of the application and review of the legislation, the statute should provide for guidance on how Indigenous rights, including Aboriginal and treaty rights (and the associated duty to consult and accommodate), and rights under the UN Declaration on the Rights of Indigenous Peoples to free, prior and informed consent, are to be incorporated, including in climate-significant assessment decision making.
 - Also for decision making in the common cases of potential for effects in and overlapping responsibility with, other Canadian jurisdictions (especially provincial, Indigenous, and territorial jurisdictions), the statute should provide for guidance on sharing information, seeking collaborative involvement and other such matters.
 - To address needs for guidance in decision making about applications of assessment requirements to categories of undertakings and designation of individual undertakings, the statute should provide for regulations to
 - specify criteria for defining, assessing and including categories of climate-important undertakings in the Project List and Strategic Undertakings List; and
 - set out information requirements for proposed designations of individual undertakings for inclusion in the Project List or Strategic Undertakings List.
 - For consistency in climate-related criteria development in individual cases, the statute should provide for regulations to guide the integration of climate change mitigation criteria into case-specified criteria for comparative evaluation of effects, alternatives, and trade-offs.
 - To address needs for clarity on how uncertainties should be considered in assessments and follow-up monitoring of individual undertakings the statute should provide for regulatory and policy guidance on key categories of

- uncertainty related to climate change mitigation issues, including guidance about appropriate approaches to technological uncertainties (e.g., where there is reliance on potentially emerging or fading technological options), and guidance on how to establish capacity to adapt to changes in overall mitigation requirements (e.g., in light of potential tightening of overall global GHG abatement deadlines and consequential adjustments to Canada's national responsibilities and changes within Canada on matters such as the allocation of carbon and other GHG budgets).
- To address more general needs to improve the information base for assessments, the statute should provide for regulations to
 - guide how uncertainties are to be considered in assessments, including follow-up monitoring, of individual undertakings (e.g., where there is reliance on potentially emerging or fading technological options) and in the overall guidance (e.g., in light of potential tightening of overall global GHG abatement deadlines, and adjustments to Canada's national fair share, etc.);
 - guide identification of assessment components (including on climate-related matters, such as climate-related models) that should be subject to peer review; and
 - ensure long-term, open public access to assessment predictions and monitoring findings (including on climate related matters, such as effects on GHG sinks).
 - For post-decision implementation, monitoring and follow-up, the statute should
 - establish powers and mechanisms for setting and enforcing terms and conditions of approval and provide for regulations in support of these powers and mechanisms to ensure approved activities comply with terms and conditions, including those related to meeting climate change mitigation commitments (e.g., providing specifics on requirements for surety bonds for cover the possible costs of providing additional offsets if the undertaking fails to deliver the promised positive GHG reduction effects);
 - establish powers and mechanisms for adjustments to approved undertakings and provide for supporting regulations for cases where climate-related effects predictions turn out to be wrong, where mitigation efforts do not work as predicted, where climate change mitigation commitments are tightened, and/or where new technological options or other opportunities arise to adjust the activity to minimize negative or maximize positive contributions; and
 - provide for regulations to establish protocols for monitoring and reporting GHG emissions, sink damages and enhancements, and other climate-related effects of individual undertakings.

1.8 What decision making processes are needed?

1.8.1 Questions concerning key process considerations

To serve all of its sustainability-based purposes in the public interest, the statute must incorporate the key requirements for process credibility and provide for supporting details in regulations. The key requirements and specifics would ensure openness, meaningful public participation, independent critical review, impartial administration, accountable decision making for the development and review of applications, regulations and policies (including for criteria and standards) as well as in individual case deliberations and decisions.

Two process questions are particularly important for climate change mitigation purposes:

- How can participative and transparent processes be established for key decisions (e.g., decisions on process application and approvals of assessed undertakings), and for developing regulations and policies, in ways that respect the interests of future generations that cannot be at the table? and
- How can the deliberative processes for assessment individual undertakings be designed and used most effectively to build understanding of climate change mitigation needs and opportunities?

1.8.2 Answers concerning key process considerations

Several steps to respect the interests of future generations and to foster and facilitate learning, including about climate change mitigations needs of options, have already been discussed in the earlier sections. The points below consolidate and add to these.

- To recognize and protect the interests of future generations that are not present to defend their own interests, including their interests in avoiding disastrous global climate change, the statute should
 - ensure that the provisions covering the purpose of the Act refer explicitly to contributions to *lasting* wellbeing;
 - ensure that the provisions covering the scope of assessments, especially the nature of effects to be considered, make explicit reference to addressing long term, including intergenerational, effects and the legacy effects of limited-life undertakings;
 - ensure that the core criteria established in the statute include a criterion for enhancement of intergenerational equity;
 - ensure that more specific criteria established by regulation include contributions to the equitable treatment of future generations as appropriate under the climate change mitigation criterion, and other core criteria, require attention to long term; and
 - ensure that the trade-off rules set in the statute or in regulations include a rule prohibiting displacement of any significant adverse effects to the future unless all other options are worse for future generations.

- In addition to overall process design to incorporate and encourage transparent, participative, impartial and accountable deliberations and decision making throughout all aspects of process implementation, the statute should facilitate use of assessment processes to foster learning, including learning about climate change mitigation needs and opportunities, by steps to
 - ensure that the provisions covering the purpose of the Act refer explicitly to learning, including intergenerational learning;
 - ensure that the core criteria established in the statute include a criterion for enhancement of awareness and understanding of sustainability-related issues and options, including over the long term;
 - ensure that the core criteria established in the statute include a criterion for enhancement of intergenerational equity; and
 - ensure that more specific criteria established by regulation include contributions to broad learning as appropriate under the climate change mitigation criterion and other core criteria.

1.9 How should interjurisdictional collaboration be fostered and facilitated?

1.9.1 Questions concerning interjurisdictional collaboration

Canadian success in meeting its international commitments in climate change mitigation will depend heavily on efforts by all Canadian jurisdictions – provincial, Indigenous, territorial, municipal, as well as the federal government. To the extent possible, the approaches taken should be collaborative. This imperative arises in part from the overlapping assignment of powers and rights, especially among federal, provincial and Indigenous authorities, in the Canadian Constitution. But collaborative approaches are also important for practical reasons of political feasibility, long term effectiveness and efficiency, fairness and consistency with expectations for good practice, including in assessment processes.

These matters of interjurisdictional engagement and collaboration are to be faced broadly in all activities related to meeting the nation’s international commitments on climate change mitigation. Certainly, they apply to all of the steps addressed in this paper. The key questions are as follows:

- What relations between and among federal and provincial, territorial, Indigenous and municipal authorities, and their assessment laws and processes on climate matters, would best enhance prospects for positive contributions from assessment law in meeting the *Paris Agreement* commitments (and likely stronger ones to follow)?
- How can these relations be fostered and facilitated most effectively in provisions in the assessment statute, regulations and other related initiatives?
- How should federal assessment legislation recognize both the central federal responsibility for meeting climate change mitigation commitments, and the need to engage with provincial, Indigenous and territorial jurisdictions that have

complementary authority (e.g., in resource extraction and land use matters contributing to and affected by climate change)?

1.9.2 Answers concerning interjurisdictional collaboration

Building interjurisdictional collaboration on climate change mitigation matters cannot be accomplished through assessment law alone. It needs to be part of a larger agenda and suite of gradually built relationships, processes, conventions, etc. Assessment law must, however, provide openings, structures and other means of facilitating collaborative actions.

- The statute should be built jointly on
 - acceptance of federal responsibility to lead action to meet the country's international climate change commitments (e.g., by using potential effects on meeting those commitments as a criterion for applying federal assessment obligations to anticipated undertakings); and
 - encouragement of interjurisdictional collaboration in meeting those responsibilities.
- To encourage interjurisdictional collaboration on climate change mitigation matters, the statute should
 - provide for interjurisdictional collaboration in joint initiation of climate-related strategic undertakings (e.g., preparation of regional climate change mitigation plans that would contribute to meeting the international commitments), in joint assessments of these undertakings, and in joint monitoring of approved undertakings and response to the monitoring findings;
 - provide similarly for interjurisdictional collaboration in the initiation of climate relevant undertakings at the project level, also including assessment review, implementation, monitoring and response to findings;
 - establish core mechanisms for joint engagement in designating, and assessing of climate-relative projects proposed by others, including private sector proponents where federal, provincial, indigenous and/or territorial authority applies, and provide for specifics to be established by regulation and/or agreement; and
 - provide specifically for government-to-government collaboration between federal and Indigenous authorities, in decision making on climate-related matters (e.g., on application of assessment requirements to climate-important projects and strategic-level undertakings, and the assessment of such undertakings), recognizing that climate-change mitigation successes and failures will affect Indigenous rights, including treaty rights, and interests.

1.10 What provisions are needed in the statute and what should be set out in regulations?

1.10.1 Questions concerning the placement of climate-related provisions in the statute and in regulations

For nearly all of the considerations in this section concerning what climate-related provisions should be included in the new assessment legislation, questions arise about what matters should be addressed in the statute itself, and in what detail, and what matters should be assigned for elaboration in regulations with further guidance in policy.

What are the core requirements and other provisions that need to be included in the statute and what specifics can be left for inclusion in the regulations with elaboration in policy?

1.10.2 Answers concerning the placement of climate-related provisions in the statute and in regulations

While the appropriate answers here are affected by the particulars of the various matters involved, the most prudent approach would seem to favour assigning only the fundamental requirements to the statute. That is largely because of the need for flexibility. The relative ease in adjusting regulations (in comparison with seeking amendments to statutes)

At best, Canada has a weak existing base of guidance for and experience in addressing climate change mitigation commitments seriously in assessment practice. While most of what is now needed in climate aspects of assessments may seem reasonably evident at the level of broad principle, the specifics will matter. Assessment rules and guidance will need flexibility to accommodate learning from continuing advancements in climate science and from the results of experience in applying the new climate provisions in this legislation. As noted above, the rules and guidance will also have to be adjusted to deal with needs for increasing ambitions in future national commitments under the *Paris Agreement*.

- The statute must establish the fundamental requirements for establishing contributions to meeting Canada's international climate change commitments (e.g., in the statute's sections on purposes, core criteria, scope of assessments, factors for consideration, and legislative review) to ensure clear and consistent basic obligations.
- The statute must also include provisions
 - for the specifics on the matters above to be elaborated by regulation;
 - for further guidance to be set out in policies;
 - for both regulation making and policy development to be undertaken in transparent processes; and

- for open public review of the climate change mitigation components of statute, and the regulations and policy directives under the statute no later than five years from the date of promulgation.

1.11 Concluding note

Any analysis focused on the implications of the *Paris Agreement* and Canada's associated Canadian international commitments to climate change mitigation will raise concerns about feasibility of implementation. Inevitably, doubts will be expressed about whether the transitions involved can be accomplished politically, economically and institutionally. Almost as inevitably, the discussants will need reminding that the "do little" alternative is more surely unfeasible. Climate change damage is already substantial and growing. Allowing overall warming and other changes across the Paris thresholds and beyond threatens the planet's life-sustaining systems and the civilizations we have built upon those systems. The feasibility questions are about how, not whether, to meet our international commitments.

None of that makes the feasibility questions any less important. But we may wish to frame them differently. Rather than treating feasibility concerns as the enemy of effective climate action, we might ask how meeting our international commitments can be done in ways that have the most beneficial effects – how they can maximize understanding, protect the most vulnerable, build mutually reinforcing support among all relevant authorities and stakeholders?

Strong assessment law with evolving but increasingly clear and credible guidance linking the *Paris Agreement* commitments to individual undertakings is not the whole story. Inevitably, prospects for meeting the Paris commitments will depend on many other factors. The following, final set of questions recognize some of the key areas for future attention:

- How can climate-related initiatives in and beyond assessment law and practice foster collaboration among Canadian jurisdictions (federal, provincial, territorial, Indigenous, regional, municipal, etc.)?
- How can such initiatives strengthen openness, transparency, participative opportunity and public learning (e.g., through decisions on how climate expertise be mobilized and reported and climate information and effects implications be presented in assessment documents and reviews in ways that make the many complex, interactive and uncertain aspects of climate issues and impacts easily understandable to assessment participants, decision makers and the broader public)?
- How can the climate-related requirements in assessments be developed and implemented in ways that foster and facilitate respect for and mobilization of diverse bases of understanding and perspective, including Indigenous peoples' knowledge systems?
- How can the requirements best encourage emphasis on positive alternatives rather than restrictions on conventional practices?